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ACUTA News

November 1996

Association of College & University Telecommunications Administrators

Univ. of Idaho: *Homepage Sweet Homepage*

Pam Hilliard
Interim Manager-Telephone Systems
University of Idaho

You're at least as technologically savvy as the university down the street, right? Then of course you've developed your own telecom department homepage?

While the University of Idaho has had a Web site for some time, the Telecom Department had only something very basic in place. Fear of the unknown (How difficult would it be? What would it cost? What benefits would it really have?) was responsible for some procrastination on my part. But I began to feel that our site should be more than just a "placeholder," and I discovered some good reasons to be a part of this relatively recent phenomenon. Perhaps most importantly, the University as a whole needed to know what we were about and what we had to offer. In addition, others had told me we could save some time and energy (which translates into dollars) with our own Web site.

Supplying information that was accurate, being able to update that information easily, eliminating some traffic in our office, condensing the steps in some standard procedures, and freeing staff for other tasks were all good reasons to create a working Web site. The final piece fell into place when one of the networking people said he had a package that was easy to use.

I had put together a very basic personal homepage for myself, but I thought this would be much more complicated. Fortunately, I found Netscape Gold to be very user friendly, and only for some of the more elaborate features did I have to resort to actual programming language. I was convinced of its ease of use when I would try to copy another department's site in order to maintain consistancy, only to discover that it had changed overnight! If others were making those kinds of frequent changes, surely this was not a complicated program.

Now, University of Idaho students have access to information about the services we offer without coming into our office. From their computer they can complete forms for calling card applications, voice mail and long distance applications, service requests, moves and adds, and other basic telecom services. Access to these forms, which was actually a last minute decision, is probably the most beneficial feature from a staff perspective. Visitors can also contact staff via e-mail from our site, and move to other interesting links.

Kari Dickinson, Assistant Director of Computer Services, expressed her satisfaction with

See "Homepage..." on page 8

Institutional Excellence Award

David E. O'Neill
Eastern Washington University
Chair, Institutional Excellence Award Comm.

Although there were no Awards for excellence for 1995–96, ACUTA's Institutional Excellence Award Committee recognized two schools with Honorable Mentions. The Committee would like to encourage members to submit an application for this prestigious award, intended to recognize excellence and professionalism in telecommunications.

Winners are selected on the basis of the telecommunication department's contribution to and support of the mission of their institution. Applications are evaluated on the basis of scope and complexity of the endeavor, technological leadership, benefit to the institution and key constituents, and demonstration of excellence and professionalism. The endeavor, product, or service should be innovative and exemplary, and provide significant advantage to the institution, faculty, staff, and/or students.

Interactive Distance Learning on a Shoestring Budget: The Implementation of a Distance Learning Program at Laramie County Community College

Laramie County Community College (LCCC) has been providing services to Southeast Wyoming, Northern Colorado, and parts of Western Nebraska since 1967. LCCC serves approximately 5000 students at five operating locations and has a full-time enrollment of approximately 2200 students. Most of the LCCC service area is rural with significant travel distance between communities. The

See "Institutional Excellence..." on page 8

ACUTA Announces Exciting New Program:
Student Papers Competition
Details on page 11

ACUTA Celebrating 25 Years of Excellence in Campus Telecommunications 1971 1996

THE VOICE OF TELECOMMUNICATIONS IN HIGHER EDUCATION

Board Report October

Committee Members Approved

The Board of Directors held a brief meeting via conference call on October 3. Discussion centered on the approval of new members for various ACUTA committees. Committee work is continuous in most cases, with new members joining existing committees to accomplish the tasks already identified.

After the customary reports and the handling of routine business, the Board also put a high priority on re-evaluating and updating the strategic plan.

Respectfully submitted,

Buck Bayliff

Buck Bayliff
Wake Forest University
ACUTA Secretary/Treasurer

Welcome New Members

October, 1996

Institutional Member

- Old Dominion University, Norfolk, VA. Lynn Kubeck, 757/683-3189; Tier 4
- Pikeville College, Pikeville, KY. Leslie A. Combs, 606/432-9302; Tier 1

Corporate Affiliate

COPPER LEVEL

- Lucent Technologies, Naperville, IL. Shannon Bowman, 630/245-7461
- Tel-Vi Communications, Inc., Fenton, MO. Howard Theisman, 314/343-9977

More Angles for 809 Fraud

Last month (page 8) the *ACUTA News* included a warning from Mary Powell of Drexel University about a new scam which lured unsuspecting victims to call an 809 number for which they were then billed at exorbitant international rates. Steve Harward, University of North Carolina at Chapel Hill, forwarded more details about this scheme to ACUTA's telecom listserve recently. Some of the approaches these scam artists are using to dupe the unprepared include:

- The threat of legal action unless the recipient of the e-mail message pays an unspecified overdue account. The message then gives a name and number (area code 809) to call for further information.
- A voice mail/answering machine message claiming to have information on a family member who is ill, has died, or has been arrested.
- Unsolicited calls made to pagers sending an 809 number to call.

Most of these calls are returned to a recording which then keeps callers on the line for as long as possible. They are then billed at a rate of $25 (or more) per minute.

Another angle: newspapers and Internet advertisements for "mystery shoppers" and overseas job opportunities. Typically, these ads list a local number, which refers callers to an 809 number.

Some sources estimate that toll fraud costs about $2 billion per year. While the U.S. government has taken steps to control fraud within our boundaries, foreign carriers are not subject to our national rules. Scam watchers suggest that foreign telephone companies are unlikely to crack down on the scammers, because many of them are taking a cut of the revenues.

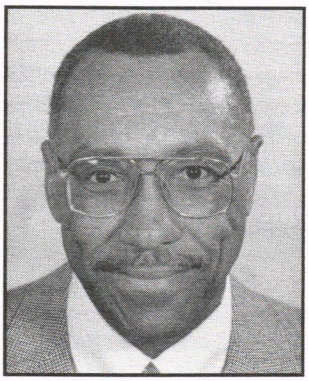
For more information, access the FCC on the Internet at http://www.fcc.gov, or read the free Internet e-zine Scambusters at http://www.scambusters.com.

If you have not subscribed to ACUTA's telecom listserve and would like to, visit our homepage at http://www.acuta.org for details.

Association of College and University Telecommunications Administrators

ACUTA NEWS, Vol. 25, No. 11

President's Message



Dr. James S. Cross

Michigan Technological University

ACUTA President
1996–1997

Strategic Planning: Campus Life Today and Tomorrow

Developing and communicating a visionary strategy can be both inspiring and onerous. Yet we must find ways to chart the courses of our lives, institutions, and professional associations. Those who master it will be leaders in the new global society. In fact, some would say, those who institutionalize creative leadership and change management will have the best chance of success, and those who do not will clearly be at a competitive disadvantage. During the coming months some of you will be asked to lay an active role in helping to develop the next version of the ACUTA Strategic Plan. Some will be asked to participate in focus groups while others will be asked to be a part of the Strategic Planning Task Force. I encourage you to support this important endeavor as ACUTA continues to embark on its path to the next millennium as a vibrant and proactive association.

The objective will be to carefully consider and deliberate such questions as:

- What changes can we expect in the wants and needs of our customers?
- What changes can we expect in our economic, social, and political environment?
- How will these changes be impacted by new technological developments?
- How will ACUTA have to change to meet the needs of its members?

Crafting strategies for the complex array of issues generated by these and other technotrends will mean not only keeping up with a rapidly changing technology, but also making sense of it in a campus environment. Creative leadership entails assessing impacts as they relate to work and play; teaching and learning; a changing work force and student body; and a shrinking resource pool. The dialog must be an integral part of ACUTA's strategic planning process.

Research indicates the ever changing world of telecommunications will continue to be a key driver of change and value-added products and services on campuses for the foreseeable future. The network will continue to be perceived as a fundamental organizational principle for 21st century enterprise. In considering the redesign of academe, ACUTA must plan for some member institutions to transition from autonomous, hierarchical, educational institutions to globally networked learning organizations. The transformation will impact all, but it is not an all-or-nothing proposition. Classrooms will not disappear, nor will the traditional campus fade into oblivion. Rather, higher education in the 21st century will provide a spectrum of choices for learners, ranging from the truly traditional to the totally transformed. Persons on many campuses will be able to electronically:

- Interact with magazine editors and book publishers worldwide
- Have lively discussions with professional colleagues around the world
- Participate in live interviews with celebrities and subject matter experts
- Access entertainment on demand
- Shop in electronic malls
- Tour the world's great museums
- Perform research in the world's best libraries from the privacy of our office, home, hotel, or weekend cottage in the Rockies.

Instruction

The teaching and learning process, once characterized by lecture halls and books, will be redefined by electronic linkages between students and the instructor.

Residence Halls

The residence halls, once primarily living quarters, will become electronic villages with a multitude of options for teaching, learning, and entertainment.

Libraries

The library, once a source of prestige and measured by the number of printed volumes, will be transformed into a seamless web of electronic resources.

Research

Even research, whose hallmark is the secluded professor, will evolve into an electronic community of collaborating individuals, companies, and governmental agencies.

ACUTA must take a proactive role in helping its members develop strategies for managing and assimilating the change driven by such technotrends as:

- Blending of work and play
- Vanishing of information float
- Growth of electronic commerce
- Rise of cyberspace marketing and advertising
- Shifting of paradigms for organization success
- Acceptance of virtual organization boundaries
- Proliferation of communications networks.

In the past, people tended to compartmentalize their lives. Work stopped at 5:00 p.m. and the weekend was the time for relaxation and adventure. Today, successful knowledge workers can no longer separate work and play. Leisure and work are increasingly becoming part of one continuum. The successful orga-

See President's Message... on page 7

The '90s: New Challenges for Telecom

What are the overarching trends in the telecommunications environment today? What's driving all the changes in telecommunications policy right now? And what are the implications of these trends for tomorrow? Attorney Jeff Linder presented an in-depth analysis of the changing climate at our Annual Conference in July. The following is an excerpt from his presentation.

Identifying Industry Trends

Convergence of disparate industry segments is clearly one of the most recognizable movements in the telecom arena of the mid '90s. Until a few years ago you had various niches: the cable market; local telephone companies; long distance companies; a small but growing number of Internet providers, both access and content; equipment providers; and computer manufacturers. The various barriers to entry in all of those markets have really just broken down. And as everyone gets into everyone else's market I think the feeling is, at least among the big players, if we can't provide everything, we are not going to be anyone's first choice for any component of the mix. So you've got telephone companies still struggling mightily to get into the video market running into, at this point, largely technological hurdles. They either can't get the video over their copper or they just don't want to spend the money to get the fiber out.

You've got the cable companies deciding they're going to get into the phone market. Again, it's still preliminary, but they will be getting in pretty quickly over the next couple of years or so. Long distance companies are desperate to get into the local market, and local carriers want a share of the long distance market. And that really is a lot of what drove the new telecom reform act legislation. Basically let's break down the barriers, let everyone into everyone else's market and let them all have at it. That's the end goal, though we're actually going to go through a more regulatory period than we've already been through, because trying to establish the ground rules for that competition is going to be a very difficult task.

A natural follow on to convergence is **integration**. That's services and equipment combined in a single package. This is the one-stop shopping idea—everyone wants to be all things to at least some people. All providers out there want to be able to give you every conceivable thing you might possibly need that bears on communications.

We're seeing a lot of consolidation within each industry segment, such as Bell Atlantic/NYNEX, PacTel/Southwestern Bell. There's no reason to think that either of those deals will not go forward. I would assume that there'll be some horse trading at the state level when they go through the approval processes. I don't think the FCC will stand in the way at all. It will be interesting to see whether the justice department steps in. I think, if they do, it will more likely be on the Bell Atlantic/NYNEX deal than on the PacTel/Southwestern Bell deal because Bell Atlantic and NYNEX have contiguous service territories. There might be some concern of foreclosure of potential competition. But even that, I think, will not ultimately hold that deal off. You're going to see it in the long distance market. A lot of the smaller players are going to be either consolidated or they will be bought out by Bell companies or even foreign carriers such as British Telecom, which already has an investment in MCI. Dutch Telecom and French Telecom have an investment in Sprint.

> "This is the one-stop shopping idea—everyone wants to be all things to at least some people."

That leads into the next point, which is **globalization of both markets and ownership**. It's not just going to be one-stop shopping domestically within the United States. You're going to have real integration of ownership and management. I think AT&T and MCI and Sprint will expand the deals they already have with partners in Asia and in Europe, and they'll expand into other parts of the world as well. Again, the feeling really is we have to cover everything because to the extent that there is any gap, our competitors will jump in ahead of us.

A lot of what is driving the move toward consolidation, integration, globalization is what I would call **commoditization**. It's very hard to distinguish between service providers anymore. When you've got digital networks and the most modern technology, the services are all going to be pretty much the same. What's going to distinguish one provider from another is the packaging, the customer service, and the promotion. And so the idea is "if we can't distinguish ourselves that much on the technology (any technological lead is measured now in either weeks or months rather than in years), we have to win over the customer through marketing and packaging.

The final overarching trend, visible in both the legislation and the FCC reaction to the legislation, is **re-evaluation of the role of government**. Last year a lot of people in Congress were talking about how we really don't need the FCC anymore. We can privatize some of its functions, transfer some of them to other government agencies and just get rid of the rest. You don't hear a lot of that but there's still a group, particularly among the freshman House Republicans, that still want to see the FCC gone. The FCC is reacting to that, I think, in a very logical manner by trying to make themselves indispensable. They want to show that they're responsive; that they can act very quickly. At the same time they are interpreting the various mandates that Congress has given them in the new act as broadly as possible. They want to put into place a very detailed regulatory regime that guarantees that there will be an FCC for the foreseeable future. That is coming to some extent at the expense of the state public utilities commissions.

Many things about the new telecom reform act are quite vague, which is sparking some interesting debates among lawyers. The FCC has interpreted Congress

as saying, basically, the 60-year history of dividing responsibility for regulating telecommunications between the FCC and the states is out the window. Now the FCC is the one in charge, and it can tell the states to do this or that. The states don't have much policy initiative of their own. Needless to say, this is driving the state utility regulators up the wall.

Implications for the future

What will those trends bring us over the next few years, particularly as a result of the new telecom act and some other initiatives from the FCC? One thing that I think is of critical importance, particularly for those who are in the process of renegotiating contracts for long distance service, is there's going to be some **pretty good reductions over the next few years as the Bell companies come into the market**. I would certainly recommend against signing anything with a term longer than two years at this point, unless it includes an indexing clause that allows the rates to go down as marketplace rates go down. I think **the largest decrease will be on intrastate long distance** because those rates right now are set well above cost to provide subsidies for residential phone service. With competitive inroads those subsidies are no longer going to be tenable. There's going to be reform of the universal service funding mechanism.

In the interstate long distance market there'll be reductions as a result of competition but the big reductions will come as a result of access charge reform. Chairman Hunt has said he wants to reform access charges by January '97. I don't think that's possible. It's going to be a very contentious proceeding. I think it's more likely by the middle or even late part of next year. Again there are a lot of subsidies in access charges right now and those subsidies will have to be moved around or made explicit. Because access charges right now account for about 40% of the long distance carrier's costs and with reform that number may be cut in half, you can look for some pretty **substantial rate decreases in the long distance market**.

The same applies to international rates, which are coming down dramatically. They will continue to come down, not as a result of the legislation, but simply because governments of many other countries are liberalizing their communications regimes and allowing competition and all of the above cost settlement rates, which are sort of the equivalent of access charges for international traffic, are dropping significantly.

That may not hold true in the **local market. Larger users will see some decreases as competition comes in. Smaller users may not,** and here it's a question in each state of how much of a political risk the regulators are likely to take by allowing increases for local phone service. In many places, as you probably know, local service, particularly for residential customers, is priced below cost. Those rates are going to have to come up either through direct increases to the end user or through explicit subsidies paid through other parties including business and institutional users. So it's not clear to me what your local phone bill is going to look like in three or four years. It may be a decrease, particularly if you're in an urban area, if there's a lot of competition likely to come in; or it may be an increase if you're in an area where there may not be that much competition or in states where the public utilities regulator believes that institutions and businesses have a duty to fund affordable residential phone service.

At the federal level I think the **FCC will eliminate tariff filings by long distance carriers** in the near future—probably by the end of this year. That's good news for users. As you may know, if you've got a service agreement with a long distance carrier, that agreement is not enforceable. The tariff that the long distance carrier files is what governs the relationship between it and you. If tariffs go away, the service agreements become enforceable; there is no longer the risk that the long distance carrier could change the rates or change the terms and conditions simply by making a unilateral tariff filing.

One point of concern has to do with funding universal service. I think there will be **increasing pressure for large users**, including probably many of you in this room, **to contribute more toward the funding of universal service through federal funding mechanisms.** You may find yourself—either indirectly through subsidies charged by your service provider or directly through subsidies imposed on large end users—paying more to fund universal service.

There's going to be **increased attention to disability and accessibility issues at the FCC**. This was a significant part of the new telecom reform legislation. The FCC will be starting rulemaking in the next few months to assure that individuals with any kind of disability have access to all telecommunication and information services. They've already adopted new rules on hearing aid compatibility. I was a member of the negotiated rulemaking committee that developed those rules. They're not nearly so onerous as the ones that were suspended three or four years ago. They reach a good balance by requiring—in the work place, at least—that all phones be hearing aid compatible by the year 2000 if you bought your system after 1989, 2005 if you bought your system before 1989. There is no obligation to go back and survey your installed base; but if someone brings to your attention the fact that a phone is not hearing aid compatible, you must replace it.

Competition is going to produce new varieties of "entrepreneurs," and I mean that in a less than charitable manner. These are the folks who brought you 800 pay-per-call and things like that. International information services charge outrageous rates. The FCC just adopted new rules that attempt to cut off those sorts of activities. The problem is it's the finger-in-the-dike analogy: Whenever you plug one hole, another opens up. We need to be careful going forward.

Looking at the new mergers and alliances, I believe within the next 4 years there are going to be **three or four massive integrated worldwide service providers**. AT&T will be part of one, probably a whole coalition of Bells will be part of another, MCI and British Telecom another, and probably a bunch of other partners in some kind of a Sprint group. But there's going to be much more consolidation in the years ahead. And I think a result of all that is going to be a tremendous amount of confusion. All of you are going to face all kinds of new challenges over the next four or five years.

Jeff Linder is an attorney with Wiley, Rein & Fielding. He can be reached at 202/429-7384.

DC at a glance

Whitney Johnson
(Retired)
Northern Michigan University

Whitney L. Johnson

The Justice Department

No one is immune to the crimes of hackers. On September 16, as reported in the September *Telecom & Network Security Review* (TNSR), Justice Department workers found that their official web site was a mass of cyber graffiti. "Colored pictures of historic and pop culture figures were inserted into the site and links were added for other web sites that are critical of President Clinton, Republican presidential nominee Robert Dole and others. Much of the web site was also turned into an advertisement against the Communications Decency Act." The site was shut down for clean up until the evening of the 18th. The Department will be looking into whether or not it can track down the culprit.

Banner Warnings

The same issue of TNSR recommends that all networks include a warning to everyone attempting to enter the network about misuse. In some legal proceedings the companies that have been invaded by hackers have lost the case because they did not tell the hacker to stay out. TNSR suggests the following wording: "This system, owned and operated by XXX Corp., is for the use of authorized users only. Authorization is at the sole discretion of XXX Corp. XXX Corp. reserves the right to do keystroke monitoring and reserves the right to prosecute trespassers." It may be possible to place a similar voice warning on voice mail systems used to answer special incoming lines that have been attacked by hackers involved in long distance phone fraud.

The FCC

Have you been wondering how quickly the competitive LECs will get into the market with local service? Don't hold your breath. Through September, *Telecommunications Reports* (TR) followed the petitions that were filed calling for a review of the FCC's interconnections rules (Common Carrier docket 96-98). Then on September 27, the U. S. Court of Appeals for the Eighth Circuit (St. Louis) issued a "temporary stay" of the FCC's Common Carrier docket 96-98 interconnection order.

The stay was to remain in effect until a hearing on Oct. 3 in Kansas City when representatives of each of the four major players would be able to give oral arguments. The four player groups were the incumbent LECs, the competitive LECs, state regulators, and federal regulators including the FCC and the Justice Department. All concerned appeared to be pleased that the court was giving petitioners a chance to present their case.

TR (10/7) devoted extensive coverage to the October 3 hearing under such headlines as "FCC Hit from All Sides with Petitions To Reconsider Interconnection Order." All left the court session wondering what would come next. Would the Court continue the current stay? Will the Appeals Court hear more arguments in January? Will a decision in the case come as early as March or April of next year?

Late in the evening on October 15, a posting to the *U. S. News* Web site answered most of these questions. The story originated in St. Louis, Missouri, and stated, "A U. S. Court Tuesday put on hold key provisions of a landmark federal rule designed to break open the nation's local phone monopolies to competition while it considers a court challenge to the measure." This hold does not cover the entire docket 96-98, but at least will have an impact on how quickly the competitive LECs can get into the market with local service. Oral arguments in the case are scheduled for January. One can only speculate about when a final order will come.

Congress

TR has referred to a number of bills that have been entered in the House and/or the Senate or are being considered for entry that might have an impact on telecom. HR 3957, the "FCC Modernization Act of 1996," included a restriction on the travel of the FCC Chairman to within 50 miles of the District of Columbia. This wording has been taken out of the bill but it shows some of the thinking in Congress. This bill along with others will most likely not move along until next year—if at all. More on the proposed legislation as it moves toward passage will come in the future.

Do I know you?

As reported in *Information Week* (9/2/96), a new technology called TrueFace CyberWatch uses a small video camera mounted on top of the monitor to control computer access. When a would-be user sits down to use the computer, TrueFace's software snaps a picture and compares it with those stored in an image database. No match, no access. According to Miros, which makes TrueFace, the system also requires no training; it's fast and easy to use, and can't be fooled by a photo.

President's Message...

Continued from page 3

nization is more and more characterized by speed and flexibility rather than the traditional factors of size and control. Success will increasingly become a function of how fast organizations respond to customers, deliver new products, and change strategic direction. Partnerships and teams that cut across functional areas and organization boundaries will increasingly be the norm rather than the exception. We will continue to witness the disappearance of any time lag between when a transaction is submitted and when it is executed and reported. Individuals and organizations will demand to know the status of accounts at any given moment. Electronic data interchange will be the rule.

ACUTA must develop strategies to help members transcend to this new age and to provide access to the seamless web of heterogeneous resources and applications anywhere in the world. Although many of our members can intuitively imagine the value of an information age campus, the complexities of making the transition from the traditional office, classroom, and dorm to the high tech array of multimedia and knowledge navigation tools of the electronic village will be disconcerting to many—yours truly included.

Crafting the successful strategies and managing the complexities of change driven by these and other technotrends mean ACUTA must continue to refine and enhance its strategic planning process to:

- Make sense of a plethora of new technologies
- Meet the needs of a diverse constituency
- Overcome time, distance, and location constraints
- Empower the human mind to reach new levels of creativity and understanding
- And, to quote Michigan Tech President Curt Tompkins, "make the once impossible, possible."

The ACUTA Board will continue to seek the "best of the best" in developing its strategies, plans, programs, and services as we transition in a time when one age is dying and a new one is evolving. We cannot doubt this as we look around and see the radical changes in lifestyles, entertainment, family structure, education, government, moral values, social structures, technology, and almost every aspect of modern life. A choice confronts all of us: Shall we capitulate and lose our chance to help create the future? Or shall we push into the forest where margins fade and there are no well-worn paths?

1997 Events Calendar

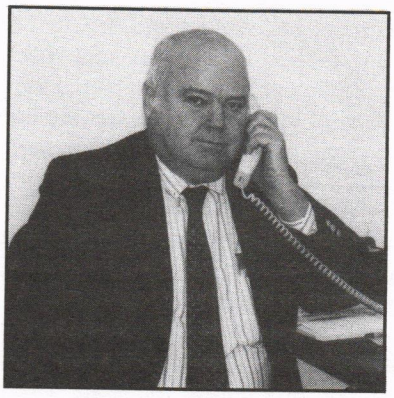
Winter Seminar
January 19-22
Ponte Vedra Beach, FL
Marriott at Sawgrass Resort
Track I: Negotiating In a New Era of Local and Long Distance Competition
Track II: Integrating Networks

26th Annual Conference
July 13-17
Atlanta, GA
Marriott Marquis

Spring Seminar
April 20-23
Las Vegas, NV
Alexis Park Resort
Topic: Student Services & Revenue Generation

Fall Seminar
October 19-22
Albuquerque, NM
Hyatt Regency
Track I: Strategic Planning & Team Management
Track II: Hot Topic To Be Determined

"ACUTA office...



...this is Cliff."

ACUTA welcomes Cliff Smith as our new Administrative Secretary. Cliff joins the Lexington staff coming from a similar position with the Fayette County Education Association. A native of Central Kentucky, Cliff's background also includes serving as Administrative Assistant to the National Director of Omicron Delta Kappa collegiate leadership honorary; as a researcher, programmer, and producer for an affiliate of National Public Radio; and as an Administrator of Cincinnati Bell Telephone Company's regional office in Lexington.

Cliff occupies the front desk at the ACUTA offices in Lexington and is likely to be the first voice you hear when you call. Among his duties are assisting Executive Director Jeri Semer in the execution of administrative tasks and working with other ACUTA staff. Cliff is not related to Business Manager Eleanor Smith, although, he admits, "there seem to be a lot of us around with that last name."

An avid sports enthusiast, Cliff, who is single, writes in his leisure time as a freelance sports columnist for some Kentucky weeklies, enjoys tennis and other outdoor sports, listens to "almost all kinds" of music, and looks for "opportunities to continually expand my horizons."

Homepage...

Continued from page 1

our efforts: "Computer Services as a department has determined that its primary method for campus information distribution will be via the Web. Distribution of information via this method has many advantages over other more traditional methods of communication. The Web removes the problem of platform specific and location specific boundaries. It quickly and effortlessly provides information to anyone needing it. The Web also removes difficulties associated with updates and re-distribution of modified material. These pages provide the Campus customers with a single point of reference for all their telephone system information needs. Documents may be printed as needed directly from the Web.

"Additionally, the Web provides an easy method for automating data collection. The next phase of the Telephone System Web pages, for example, will involve transforming most of the forms we have made available there into automated forms. Campus clients will be able to fill these forms out via the Web and send them off automatically to the proper location. This will save time and increase accuracy at the time of data collection."

With my other ongoing responsibilities, getting our site built took about three months. I was able to do all the work myself, so we incurred no development cost other than my time, and we expect maintenance to be minimal.

Primarily, this Web site will be of use on campus and to our branch campuses. We have network connections in all our branches and dorms for video, voice, and data, and we are in the process of cutting over to a new system. So we expect the number of remote users to grow steadily, which will increase the value of our site as a resource for students, faculty, and staff.

While I was not pressured to develop this site by our administration, I was very pleased to announce that it was available. You're invited for a virtual visit at: http://www.uidaho.edu/csrv/telecom/

Editor's Note: *Other interesting telecom homepages include:* Univ. of the South **http://www.sewanee.edu/telecom/telecom.html**; Carnegie Mellon Univ. **http://www.telecom.cc. cmu.edu**; Eastern Kentucky Univ. **http://net.eku.edu**; Univ. of Pennsylvania **http://www.upenn.edu/penntrex/**

Institutional Excellence...

Continued from page 1

college is predominantly a commuter school with only one dormitory that houses about 90 students. Most services including telecommunications support are provided by in-house staff with communications services a joint effort between the Information Technology Services group and the Physical Plant.

The telecommunications staff at LCCC have designed and managed a number of complex projects in the past five years, including three new telephone switches, outside cable plant for the main campus, and fiber optic backbone installation. The staff are probably most pleased with the distance learning system achievement, recognized by the Institutional Excellence Award Honorable Mention, because of the project's direct relationship to the instructional mission.

Without defined resources for the program and with little expertise, LCCC has implemented a successful distance learning program, becoming the first of the seven Wyoming community colleges to offer courses using the compressed video technology. The objective of this project was to provide course delivery to two communities approximately 50 miles distant from the main campus.

Using in-house resources and information gathered from other colleges and vendors, LCCC planned and implemented 15 frame-compressed video systems using components from multiple vendors at a significant savings over conventional turn-key solutions. A project initially thought to be impossible within the financial constraints of the institution is operational and providing services to LCCC students.

TQM at Univ. of Colorado, Boulder

Approximately five years ago Telecommunication Services at the University of Colorado at Boulder began a journey toward implementing a quality program. Initial efforts were driven by opportunity, but more recent efforts have been driven by an internal desire, motivation and an operational mandate for change.

This ongoing journey of continuous improvement is guided by four principles:

- Allow customers to lead the development of department processes
- Make decisions by data whenever possible
- Involve everyone in making changes who would be affected by those changes
- Think long term and act short term.

The structure of this effort began with a clear understanding of the institution's mission which is to provide instruction, to support research, and to offer service to the public. Telecommunication Services' mission is to support the institution's mission by providing enhanced voice services and data communications connectivity which meets or exceeds customer expectations. The vision is to provide that service in such a way that customers could literally not afford to use anyone else.

To accomplish this mission, the department identified five critical processes on which success hinges:

- Work Order Processing
- Trouble Management
- Long Distance Services
- Plant Construction
- Plant Engineering

UC Boulder has a total student enrollment of approximately 26,000. The campus covers 850 acres, 150 of which are a dedicated research park. Telecommunications Services provides service to over 200 buildings and 22,000 jack locations, in addition to serving 13,000 voice extensions; 6,000 voice mail subscribers; more than 1,700 low speed data customers; and connectivity to over 4,000 ethernet customers. Fifteen campus call centers integrate a mixture of ACD, Automated Attendant, and Integrated Voice Response technology.

Both of these schools, plus others who submitted materials to the committee, are to be commended for their efforts. Information regarding the '96–'97 Awards will be mailed to members soon.

Campus News Briefs

Illustration courtesy of MCI

Get in line to go on-line

At least three universities have recently experienced such dramatic increases in demand for network access that they have resorted to some type of "rationing." According to *The Chronicle of Higher Education* (10/4), the University of Pennsylvania's system can handle 600 callers simultaneously, but they have instituted time limits to accommodate campus users equitably. A number of "express" lines limit users to 15-minute on-line sessions. All other lines limit those with fast modems (28,800 bits/second) to one hour; users with slower modems have a two-hour limit.

Massachusetts Institute of Technology is considering "Quickstations" which would be designated for short on-line sessions where only certain tasks (checking e-mail, grades, or class schedule) would be allowed. Another proposal calls for moving some of the oldest UNIX computers into high-traffic areas where students would have open access, much like public telephones.

Brown University, where administrators suspect students from other campuses are competing for computers in some public laboratories, is considering a password requirement.

ACUTA reps: Univ. of PA, Laurie Cousart; MIT, Valerie Hartt; Brown, Tony Tanzi

Projects amplify U of A computing resources

Cross-campus teams are making more efficient use of the University of Arizona's computing resources. Among many Center for Computing and Information Technology team projects is a four-year Chemistry-CCIT partnership through which the chemistry department funded a new server computer while CCIT houses and maintains it in its main computer room. Both share the use---materials for undergraduate chemistry courses are now available to students via Web home pages. [U of A Computing & Communications News, July/Aug/Sept 1996]

ACUTA rep: Amelia Tynan

Boston College eyes NCs for students

Boston College is testing the network computer concept this year, doling out about 500 Internet Client Stations to college service employees for accessing personnel data on an intranet. If the trial goes well, BC wants to make NCs available for lease to its 7,600 students. The Internet Client Station, made by Mass.-based IDEA, sells for about $500 and uses a 40-MHz RISC CPU. [from "NCs finding their niche," Information Week, 26 Aug 96, p. 22]

ACUTA rep: Patricia Tobin

Kent State Leases desktop technology

This fall, Kent State University began a test program of leasing desktop PCs to outfit residential hall computer labs with the latest in technology. A 24-month operational lease was signed for Pentium computers to outfit four dorm labs. Reasons for leasing included the need for providing students with current technology and cash flow considerations for an auxiliary service whose main funding is fees. Contact: Dewitt Latimer, director of Academic Computing and Technology, dewitt.latimer@kent.edu

ACUTA rep: Margie Milone

Info ASAP at Pepperdine

For the 7,000 Pepperdine students spread across metro LA there'll be no more standing in line at the Registrar's office to request information. According to Communications News (10/96), a Pepperdine application developer has created ASAP—Automated Student Access for Pepperdine—which enables students to get live CICS mainframe data via the Internet, checking personal class schedules, billing information, progress reports and grades, and class lists. With PIN access, students can view info in a graphical, easy-to-read format.

ACUTA rep: Terry Wallace

Curtin University launches e-news

Curtin University of Technology in Perth, Western Australia, recently launched an innovative system, Curtin Enews, to improve campus communications. The system allows news to be accessible across campus within seconds, on large screens, information kiosks, and any computer connected to the Internet. The large screens and kiosks have been placed in high-traffic areas (lobbies of lecture theaters, the Tavern, cafeterias, the library), and news can be seen either as scrolling headlines or with more details. News items are entered by over 70 area editors using a simple Web form, and can include text, graphics, and short video clips. The system was developed by a team comprising staff from the computing center, library and information service, public affairs, and school of design. http://www.curtin.edu.au/enews/

ACUTA rep: Mike Tkacz

Thanks to CAUSE's electronically delivered Campus Watch for some of the information on this page.

Industry Insights

HotWired modems

From the *Tampa Tribune* (9/21/96): The new HotWire system from Paradyne Corp. uses an RADSL (rate adaptive digital subscriber line) modem that can send data at speeds up to 2 million bits per second, making it possible to send video over ordinary telephone lines. The technology is more than 15 times faster than conventional ISDN lines.

Plasma flat-screen technology from Fujitsu

Most thin screens, such as those found in laptop computers, rely on liquid crystal displays (LCDs). Now, according to the *New York Times* (9/23/96), Fujitsu has patented a way to develop plasma-display panels that could be used to create big screens for computer monitors and TV sets. A thin layer of plasma gas coated on the back of a screen is lit up in a variety of colors when the plasma crystals are activated by an electric charge. The technology will be licensed to other Japanese and Korean TV manufacturers.

Family Radio Service keeps tabs on kids

Need to keep tabs on family members in fairly short-range situations, such as a shopping mall or baseball stadium? Check out the Family Radio Service, recently approved by the FCC, which offers instant, real-time communications capabilities in a light-weight, portable device and allows high-quality, two-way conversations over distances up to two miles with no per-minute usage charges.

According to an Electronics Manufacturing Association spokesman, you can now communicate with another person in a short-range environment without having to carry around a walkie-talkie or a CB radio. (From the *St. Petersburg Times* 10/7/96)

Hands-free computing

Researchers at Biocontrol Systems have designed a device, called a Biomuse, that serves as a general purpose interface between a computer and the body's own electric signals. The system converts amplified EMG signals into digital form, which, after much additional processing, signals a computer when muscles near the electrodes are contracting and by how much. The muscle activity actually controls the operation of a PC, even though the user might be partially paralyzed or otherwise disabled. Taking the concept one step further, the scientists are creating a hands-free EMG mouse, which would allow someone to move a cursor simply by tensing a muscle, without having to move the hands from the keyboard.

Another approach under investigation involves electrooculographic, or EOG signals. Using equipment that measures fluctuations in voltage between the retina and the cornea, a person could reliably operate a PC via eye movement. Indeed, other institutions have developed "visual keyboard" software that displays a standard keyboard which can be "typed" simply by focusing on specific keys. (*Scientific American*, Oct. '96)

Klutz-proof laptops

Matsushita Electric Industrial Co. is selling a sturdy new laptop designed for the uncoordinated and accident prone, reports *Investor's Business Daily* (10/14/96). Sold under the Panasonic brand name, the machine is encased in a magnesium alloy cabinet, the disk drive is mounted in a shock-absorbing gel, and the liquid crystal display is protected by internal dampers. The super-rugged model, reputed to be coffee- and drop-proof, has been available in North America and Europe for about two months.

Spotlight

Welcome to four of ACUTA's most recent Corporate Affiliate members:

Cox Communications, Inc. provides cable television service to over 3.2 million customers in more than 200 communities nationwide. Cox also offers high-speed data service and wired and wireless telephony in select areas. *Peter Dieraux, 404/843-5581*

Lucent Technologies Services Company: Working with your local Lucent Technologies Account Executive, we offer high quality engineering, installation, and maintenance of outside plant copper or fiber optic campus cables, building wiring (RCDDs on staff), and wideband transmission systems. *Dan Cowen, 800/982-8035*

Panduit Corp. manufactures complete structured cabling solutions for copper and fiber applications. Designed for high performance and standards compliance, this line includes outlet, closet, surface raceway, labeling, and cable tie products. *Jennifer Hill, 800/777-3300*

Teleport Communications Group (TCG) the *other* local phone company, headquartered in New York, is the nation's first and largest provider of competitive local telecommunications services serving 55 major metropolitan markets nationwide. *Jeanine Carter, 212/478-8055*

ACUTA Student Paper Competition Debuts

The Board of Directors has approved a proposal to create a new program to reward outstanding papers written by telecommunications students. The competition will begin immediately with the 1996-97 school year.

Telecommunications is a rewarding and challenging profession, and this program is designed to recognize students who have chosen telecommunications as a field of study in higher education. The competition will also highlight the importance of telecommunications in carrying out the academic mission of colleges and universities today and in the future.

The papers will focus specifically on telecommunications in higher education. They will be original works, and must represent a thoughtful analysis or original research into telecom technology, applications, or management issues as applied in higher education.

This new competition will be open to students who are enrolled in a degree-granting program, with a component of telecommunications as part of their studies. They may be part-time or full-time registered students, and may be pursuing an associate, bachelors, masters, or doctoral degree.

Winners will be selected by a panel of ACUTA members, chaired this year by President-Elect Margie Milone of Kent State University. President-Elect Milone has made it a priority to attract outstanding entries that will benefit both students and ACUTA members.

The top three winners of this year's competition will receive a trophy, honorarium, and complimentary registration to the 1997 Annual Conference in Atlanta, where their efforts will be recognized at a General Session. The winning papers will be distributed with the 1997 Conference proceedings, and will be considered for publication in the new *Journal of Telecommunications in Higher Education*. The winning papers will also be published on the ACUTA World Wide Web site, and students and faculty members will be encouraged to visit the Web site to read the winning entries.

In late November, a mailing of the award brochure will be sent to all ACUTA members. We need your help to assure the success of this program in its first year! When you receive the brochure, please pass it along to the telecommunications department or other appropriate academic departments and administrators on your campus, give a copy to the campus newspaper, and otherwise help to publicize it on your campus. We also ask that you encourage students to enter. Perhaps even some of your student employees who are also studying telecom would be interested in entering.

ACUTA's goals include increasing the visibility of our profession and our association on college and university campuses. We can accomplish this goal by increasing our ties with academic programs at institutions that offer telecommunications education, and this competition is designed to help. We are looking forward to rewarding some of the outstanding students who have chosen telecommunications as a field of study and, perhaps, for their future profession.

The ACUTA staff wishes a Happy Thanksgiving to all of our members in the United States, and a happy beginning to the holiday season for our members around the world.

Can you help?

A number of initiatives currently underway—including the new *Journal of Telecommunications in Higher Education*, the Student Papers Awards competition, and the on-going Resource Library—require information that could best be obtained from those involved in the academic side of telecommunications. For this information, we are turning to you. Please send us (phone–606/278-3338; fax–606/278-3268; e-mail–pscott@acuta.org) the name or names, address, and phone number of the Chair of the Telecommunications Department or a professor of telecommunications on your campus.

From ACUTA Headquarters

Jeri A.Semer, CAE

ACUTA
Executive Director

Bulletin Board

Check the ACUTA homepage for position ad updates: http:// www.acuta.org

3 Positions Available

Drexel University

(1) Senior Network Systems Programmer

Responsibilities: Under administrative supervision is responsible for computer systems used to collect & analyze performance of campus network. Identifies & installs new server-based TCP/IP application level protocols used to support campus network.

Qualifications: BA/BS in computer. sci. or mgmt. info. systems, or equiv. exp. Five years direct exp. in application development; detailed knowledge of TCP/IP, AppleTalk, UNIX, & Macintosh/OS; two years direct exp. with SNMP mgmt. in a programming environment; exp. with database application programming. Proven ability to communicate effectively with strong oral/written verbal skills & strong analytical & creative problem solving skills. Exp. in academic environment preferred.

(2) Network Technician

Responsibilities: Under limited supervision this position is responsible for installation & maintenance of components of campus data & telephone network.

Qualifications: Graduate of an electronics technical school with focus on computer electronics or data networking or equiv. Three years exp. installing/maintaining data networking components or related exp.; detailed knowledge of standard wiring components & techniques, Ethernet & data networking electronics; basic knowledge of RS232, AppleTalk & TCP/IP protocols; expertise in troubleshooting complex systems such as computer networks or equiv. preferred; ability to use and configure Macintosh personal computers. Excellent written/oral communications skills.

(3) Manager

Responsibilities: This position is responsible for the overall management & administration of the Telecommunications & Networking Group. This group has responsibility for providing all Telecommunications and Data Networking support for the campus. This includes: Design and maintenance of the copper and optical wire plant; Telephone and billing services provided through two integrated systems, a campus based PBX (Northern Telecom SL1) and a local telephone company centrex system (DMS100); A mixed complement of data communications including a campus wide Ethernet backbone using the TCP/IP and Appletalk protocols, local area Ethernet and Localtalk networks, and various directly connected and switched asynchronous data services.

Qualifications: BA/BS or equivalent work experience; adv. degree preferred. Experience: 7-10 years management experience in voice or data communications; at least 5 years management experience in an academic environment using TCP/IP protocols. Applicants should be able to demonstrate diverse technical expertise with the Unix operating systems, LANs, local and long distance telephone companies, databases, and general business operations.

To apply: Telecommunications & Networking Group, Office of Computing Services, Drexel Univ., Philadelphia, PA 19104. Phone 215-895-2690; fax 215-895-1724; e-mail ocsjob@duvm.ocs.drexel.edu

Position Available

University of Cincinnati

Field Engineer, Network Operations—C.I.T.S.

Univ. of Cincinnati Center for Information Technology Services has an opening for a seasoned professional to join our team as a Field Engineer.

Responsibilities: Responsible for 15,000+ line IBX S80+PBX, 8 SL1 PBX's, voice mail, key systems & modem pools, as well as assist with installation & problem resolution of our campus FDDI backbone & associated routers, hubs, & Ethernet segments.

Qualifications: Assoc. Degree in Electrical or Electronic Technology or a related field or an equivalent combination of education and experience in telecommunications, large PBX maintenance and programming, voice mail, and data networking. Position may on occasion require 2nd shift assignments and weekend duty.

Send resume, cover letter, & salary requirements to: Professional Recruitment, Univ. of Cincinnati, Mail Location 0566, Cincinnati Ohio 45267-0566. Resumes accepted until position is filled.

Congratulations...

To **Mike Tkacz** of **Curtin University** in Perth, Western Australia. Mike recently received the Vice Chancellor's Award for Excellence, citing his "skill and creativitiy in his ability to adapt his knowledge of current and potential telecommunication services and facilities to serve the needs of a user constituency which is both functionally and geographically dispersed," and commending his "on-going commitment, dedication and tireless support of the administrative functions of the University..."

Position Available

Eastern Kentucky University

Data Services Engineer

EKU's Div. of Academic Computing & Telecom Svcs. is seeking a Data Services Engineer for its Novell NetWare 4.1 WAN and voice response applications.

Qualifications: Experience with PCs, Macs, UNIX, LANs, and PBX systems. BA/BS in Electrical Engineering preferred. Also, exp. with Cicso router administration, Windows NT, and CNA certif. is preferred.

To apply: Submit letter of application & salary history to: Human Resources, EKU, Richmond, KY 40475-3101. EO/AA

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